

REMARKS

Support for the amendment to Claim 1 with respect to the temperature is found in the Examples none of which uses a temperature greater than 150°C; support for the definition of the liquid is found at 3 lines 11 - 13. The temperatures used in the Examples are:

Example No	Temperature
1	75°C
2	150°C
3	40°C
4	room temperature
5	room temperature
6	20°C

Support for new Claim 2 is found at page 4 line 11, page 4 line 27 and page 5 line 4.

Support for new Claim 3 is found at page 3 lines 25 - 30.

The sole issue raised in the official action is whether the invention as claimed is anticipated by U.S. Patent 4,280,990.

It is submitted that it is not. Claim 1 uses lower temperatures and requires the presence of a liquid that is capable of dissolving intermediate reaction products and/or sulphur forming on the surface of the solid material. Use of such features is nowhere disclosed or suggested in US 4,280,990 .

The following chart sets out the principal differences between Claim 1 as amended and US 4,280,990.

feature	Claim 1	US 4280990
Passage of H ₂ S and/or mercaptans through layer of solid materia;	Below 150°C, some examples at room temperature	At least 160°C - see column 5 lines 11 and 60, column 9 line 63, at elevated pressure 5 atmospheres apparently being the minimum - see column 3 lines 1, 15 and 53, column 6 line 14, [note column 2 line 31 indicates temperatures above 195°C would be necessary at atmospheric pressure]
Nature of solid material used	Capable of decomposing H ₂ S to hydrogen and sulfur. Examples use graphite, MoS ₂ , cobalt sulfide on silica gel, cobalt molybdenum sulfide on alumina,	Catalyst in second stage of Claus process. Therefore requires first step of producing SO ₂ by reaction with oxygen and so not in itself :”capable of decomposing H ₂ S. The only Claus catalyst named is activated alumina.
Liquid	capable of dissolving sulfur or intermediate products formed on surface of the solid and removing such dissolved solid	Liquid sulfur used as coolant, not to act as solvent (see column 6 line 67)

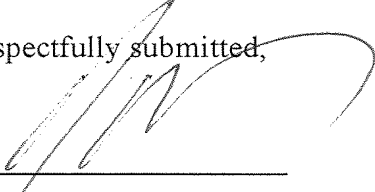
It is therefore submitted that the invention as claimed is clearly different from and furthermore is not obvious over the teaching of US 4,280,990 which relates to a totally different reaction (the Claus reaction), uses different solids, operates at a higher temperature and employs its liquid for a totally different purpose.

The other art made of record seems no more relevant than US 4,280,990 since both references deal with removal of sulfur from a Claus gas tail.

In view of the foregoing, it is submitted that this application is in order for allowance and an

early action to this end is respectfully solicited.

Respectfully submitted,



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